

# ABSTRACT OF JP 63099296

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LI ANSWER 1 OF 1 CA COPYRIGHT 2004 ACS on STN  
 AN 109:152025 CA  
 ED Entered STN: 28 Oct 1988  
 TI Manufacture of granular detergents with high bulk density  
 IN Abe, Seiji; Yagi, Ryoichi  
 PA Lion Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF

DT Patent  
 LA Japanese  
 IC ICM C11D011-02  
 ICS C11D001-83  
 ICI C11D001-83, C11D001-22, C11D001-72  
 CC 46-6 (Surface Active Agents and Detergents)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63099296	A2	19880430	JP 1986-246431	19861016 <--
	JP 07059718	B4	19950628		
PRAI	JP 1986-246431		19861016		

AB Title detergents are prepared from a powdered detergent base with 7-15% H2O and

nonionic surfactants in weight ratio 7:3-3:7, then mixing with water-insol.

fine powders. Thus, a spray-dried powdered detergent base comprising Na C14-18  $\alpha$ -olefinsulfonates 20, Na C10-14 linear alkylbenzenesulfonates 30, zeolites 23, Na silicate 11, K2CO3 11, and H2O 5% was sprayed with 6% H2O then with 4% C12-14 secondary alc.-ethylene oxide (1:15) adduct (I) and mixed with 15% soda ash and 15% zeolites to give a granular detergent with average particle size 650  $\mu$ m and bulk d. 0.65 g/mL, vs. 500 and 0.55, resp., using 8% H2O and 2% I.

ST granular detergent bulk density; water spraying powd detergent; nonionic surfactant spraying powd detergent

IT Zeolites, uses and miscellaneous

RL: TEM (Technical or engineered material use); USES (Uses)

(detergents containing, manufacture of uniformly granular, with high

bulk d.)

IT Granular substances

(nonionic surfactant-based detergents, manufacture of uniform, with

high

bulk d.)

IT Detergents

(granular, containing nonionic surfactants and water-insol. powders,

manufacture

of uniform, with high bulk d.)

IT 497-19-8, Soda ash, uses and miscellaneous 7732-18-5, Water, uses and miscellaneous

RL: TEM (Technical or engineered material use); USES (Uses)

(detergents containing, manufacture of uniformly granular, with high

bulk d.)

IT 25322-68-3D, Poly(ethylene oxide), C12-14 secondary alkyl esters

RL: USES (Uses)

(granular detergents containing, manufacture of)

IT 1335-30-4

RL: USES (Uses)

(zeolites, detergents containing, manufacture of uniformly granular, with high bulk d.)

DERWENT-ACC-NO: 1988-158492

DERWENT-WEEK: 198823

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TITLE: Granular detergent prepn. - by spraying water and  
nonionic surfactant onto detergent base and mixing with  
fine powder

PATENT-ASSIGNEE: LION CORP[LIOY]

PRIORITY-DATA: 1986JP-0246431 (October 16, 1986)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 63099296 A	April 30, 1988	N/A	004	N/A
JP 95059718 B2	June 28, 1995	N/A	003	C11D 011/02

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
JP 63099296A	N/A	1986JP-0246431	October 16, 1986
JP 95059718B2	N/A	1986JP-0246431	October 16, 1986
JP 95059718B2	Based on	JP 63099296	N/A

INT-CL (IPC): C11D001/72, C11D001/722, C11D001/83, C11D011/02,  
C11D017/06

ABSTRACTED-PUB-NO: JP 63099296A

BASIC-ABSTRACT:

In a new prepn. of a granular detergent from a bulk base detergent, (A) water and (B) nonionic surfactant are sprayed simultaneously to the detergent base with a (A)/(B) wt. ratio of (7/3) to (3/7) and a total wt. of (A) and (B) of 7-15 wt. A water-insol fine powder material is mixed. Water is sprayed and immediately after that, nonionic surfactant is sprayed.

USE/ADVANTAGE - The method controls formation of coarse grains and fine powder,

resulting in a granular detergent with relatively uniform grain sizes.

In an example, samples prep'd. has properties: 8 course grains, 2-5%; 60 powder, 1-10%; average grain size, 400-700 microns; and bulk density, 0.50-0.70 g/cc.

Ordinary nonionic surfactants for detergent are available, including ethylene-oxide-addn. nonionic surfactants of an 8-18C prim./sec. alcohol with an average addn. mol no. of 3-20. The bulk detergent base consists typically of anionic surfactant, zeolite, alkali builder, etc. On spraying the binder, the addn. of a builder and a swelling powder such as carboxymethyl cellulose is effective.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: GRANULE DETERGENT PREPARATION SPRAY WATER  
NONIONIC SURFACTANT  
DETERGENT BASE MIX FINE POWDER

DERWENT-CLASS: A97 D25

CPI-CODES: A12-W12A; D11-A03; D11-D03;

POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:

Key Serials: 0013 0231 1279 1588 1592 3198 2002 2014 2541 2585 2701

Multipunch Codes: 014 028 039 04- 147 198 231 240 252 31- 336 393 52& 575 583  
589 603 678 688 720

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1988-070896